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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,870	12/16/2004	Rainer Mangold	1703 1333US	3022

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EXAMINER	
CRAIG, PAULA L	
ART UNIT	**PAPER NUMBER**
3761	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,870	MANGOLD ET AL.	
	Examiner	Art Unit	
	Paula L. Craig	3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-27,29,30,32-35,37,38,40-42 and 44-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) ____ is/are allowed.

6)☒ Claim(s) *20-27,29,30,32-35,37,38, 40-42, and 44-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The rejections of Claims 19, 28, 31, 36, 39, and 43 are withdrawn as moot. The rejections under 35 USC 112, first paragraph, are withdrawn in light of Applicant's amendment and arguments filed January 8, 2007. Applicant's arguments with respect to claims 20-27, 29-30, 32-35, 37-38, 40-42, and 44-51 have been considered but are moot in view of the new grounds of rejection. The indication of allowable subject matter for former claims 36, 39, and 43 (corresponding to new claims 49-51) is withdrawn.

Claim Rejections - 35 USC § 103

2. Claims 20-27, 29-30, 32-35, 37-38, 40-42, and 44-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application No. 2003/0108846 to Hoertsch in view of U.S. Patent No. 5,047,189 to Lin.

3. For Claim 49, Hoertsch teaches a fiber swab for cosmetic or medical purposes or for body care (disposable oral hygiene device 20, Figs. 1-16, Abstract, and paragraph 27). Hoertsch teaches that the swab is useful for cleaning the teeth, tongue, and mouth (paragraph 26). Hoertsch teaches the swab having a stick (elongated member 30, Figs. 1-16 and paragraph 27). A fiber material forms a fiber head at at least one end of the stick (swab 50, Figs. 1-56 and paragraphs 27-30 and 49-51). The fiber material includes staple fibers having defined lengths (paragraph 30). Hoertsch teaches the fibers of the fiber material being discontinuous microfibers (paragraphs 30 and 36).

Hoertsch teaches that the fibers may vary widely in length (paragraph 36). Hoertsch teaches thermally meltable binding fibers (thermoplastics, paragraphs 28-30). Hoertsch teaches the thermally meltable binding fibers being bicomponent fibers (paragraph 30). Hoertsch teaches the fibers being polyethylene terephthalate or nylon (paragraph 30). In a bicomponent fiber, one of the polymers must have a melting point lower than the other, as no two polymers have exactly the same melting point. Hoertsch does not expressly teach the microfibers being staple fibers of at least 7mm in length, nor the bicomponent fibers having a low melting component with a melting point lower than a melting point of the micro staple fibers. Lin teaches micro staple fibers of at least 7mm in length (col. 3, lines 28-46). Lin teaches that the micro staple fibers are useful in cleaning applications (col. 3, lines 51-54, and Claim 2). Lin also teaches bicomponent fibers having a low melting component with a melting point lower than a melting point of the micro staple fibers (col. 3, line 60 to col. 4 line 59; Examples 1 and 2 of Lin teach bicomponent fibers with microfibers of polyester and nylon-6; nylon-6 is known to have a lower melting point than polyester, see reference Hawley's Condensed Chemical Dictionary; note that nylon is a polyamide). As the device of Hoertsch is used for cleaning, and as Hoertsch teaches that the fibers can vary in length, it would have been obvious to one of ordinary skill in the art to modify the device of Hoertsch to include micro staple fibers of at least 7mm in length, as taught by Lin, for cleaning purposes, as taught by Lin. It would also have been obvious to one of ordinary skill in the art to modify Hoertsch to include the bicomponent fibers having a low melting component with a melting point lower than a melting point of the micro staple fibers, as taught by Lin.

4. For Claim 50, Hoertsch teaches a fiber swab for cosmetic or medical purposes or for body care (disposable oral hygiene device 20, Figs. 1-16, Abstract, and paragraph 27). Hoertsch teaches that the swab is useful for cleaning the teeth, tongue, and mouth (paragraph 26). Hoertsch teaches the swab having a stick (elongated member 30, Figs. 1-16 and paragraph 27). A fiber material forms a fiber head at at least one end of the stick (swab 50, Figs. 1-56 and paragraphs 27-30 and 49-51). The fiber material includes staple fibers having defined lengths (paragraph 30). Hoertsch teaches the fibers of the fiber material being discontinuous microfibers (paragraphs 30 and 36). Hoertsch teaches that the fibers may vary widely in length (paragraph 36). Hoertsch does not expressly teach the microfibers being staple fibers of at least 7mm in length, nor the sinking duration of the fiber material in an aqueous solution being at least 3 seconds. Lin teaches micro staple fibers of at least 7mm in length (col. 3, lines 28-46). Lin teaches that the micro staple fibers are useful in cleaning applications (col. 3, lines 51-54, and Claim 2). As to the sinking duration, Applicant's specification, page 12, teaches that fiber material of 90% cotton and 10% micro fibers has a sinking time of at least 3 seconds. Lin teaches the portion of micro staple fibers compared to the mass of fiber material being at least 10% (col. 2, line 65, to col. 3, line 7, and Claim 1; note the microfibers are the split yarn, the mass of fiber material includes split and unsplit yarn). Lin teaches the proportion of micro staple fibers to the mass of fiber material depending on the desired type of finished fabric (col. 2, line 65, to col. 3, line 10). Absent evidence to the contrary, the fiber material of Lin is considered by the Examiner to have a sinking duration of at least 3 seconds. See *In re Fitzgerald,* 619 F.2d 67, 70 205 USPQ 594,

596 (CCPA 1980). In addition, page 12 of Applicant's specification teaches that fiber material of 100% cotton also has a sinking duration of at least 3 seconds, so that a sinking duration of at least 3 seconds in itself does not provide any cleaning advantage over a 100% cotton material. As the device of Hoertsch is used for cleaning, and as Hoertsch teaches that the fibers can vary in length, it would have been obvious to one of ordinary skill in the art to modify the device of Hoertsch to include micro staple fibers of at least 7mm in length and a sinking duration of the fiber material in an aqueous solution being at least 3 seconds, as taught by Lin, for cleaning purposes, as taught by Lin.

5. For Claim 51, Hoertsch teaches a fiber swab for cosmetic or medical purposes or for body care (disposable oral hygiene device 20, Figs. 1-16, Abstract, and paragraph 27). Hoertsch teaches that the swab is useful for cleaning the teeth, tongue, and mouth (paragraph 26). Hoertsch teaches the swab having a stick (elongated member 30, Figs. 1-16 and paragraph 27). A fiber material forms a fiber head at at least one end of the stick (swab 50, Figs. 1-56 and paragraphs 27-30 and 49-51). The fiber material includes staple fibers having defined lengths (paragraph 30). Hoertsch teaches the fibers of the fiber material being discontinuous microfibers (paragraphs 30 and 36). Hoertsch teaches that the fibers may vary widely in length (paragraph 36). Hoertsch does not expressly teach the microfibers being staple fibers of at least 7mm in length, nor the water retaining capacity of the fiber material being at least 21 g/g. Lin teaches micro staple fibers of at least 7mm in length (col. 3, lines 28-46). Lin teaches that the micro staple fibers are useful in cleaning applications (col. 3, lines 51-54, and Claim 2).

As to the water retaining capacity, Applicant's specification, page 12, teaches that fiber material of 90% cotton and 10% micro fibers has a water retaining capacity of at least 21 g/g. Lin teaches the portion of micro staple fibers compared to the mass of fiber material being at least 10% (col. 2, line 65, to col. 3, line 7, and Claim 1; note the microfibers are the split yarn, the mass of fiber material includes split and unsplit yarn). Lin teaches the proportion of micro staple fibers to the mass of fiber material depending on the desired type of finished fabric (col. 2, line 65, to col. 3, line 10). Absent evidence to the contrary, the fiber material of Lin is considered by the Examiner to have a water retaining capacity of at least 21 g/g. See *In re Fitzgerald,* 619 F.2d 67, 70 205 USPQ 594, 596 (CCPA 1980). In addition, page 12 of Applicant's specification teaches that fiber material of 100% cotton also has a water retaining capacity of at least 21 g/g, so that a water retaining capacity of at least 21 g/g in itself does not provide any cleaning advantage over a 100% cotton material. As the device of Hoertsch is used for cleaning, and as Hoertsch teaches that the fibers can vary in length, it would have been obvious to one of ordinary skill in the art to modify the device of Hoertsch to include micro staple fibers of at least 7mm in length and a water retaining capacity of the fiber material of at least 21 g/g, as taught by Lin, for cleaning purposes, as taught by Lin.

6. For Claim 20, Hoertsch teaches the fiber material being any suitable material for cleaning, including polyester or viscose fibers (paragraphs 28, 30, and 49).

7. For Claims 21-23, Hoertsch teaches the fiber material being any suitable material for cleaning (paragraph 28). Hoertsch teaches the fiber material being made of blends of different fibers (paragraphs 29-30 and 36). Hoertsch does not expressly teach the

portion of micro staple fibers compared to the mass of fiber material being 3 to 50 weight %, or 5 to 30 weight %, or 5 to 20 weight %. Lin teaches the portion of micro staple fibers compared to the mass of fiber material being 3 to 50 weight %, or 5 to 30 weight %, or 5 to 20 weight % (col. 2, line 65, to col. 3, line 7, and Claim 1; note the microfibers are the split yarn, the mass of fiber material includes split and unsplit yarn). Lin teaches the proportion of micro staple fibers to the mass of fiber material depending on the desired type of finished fabric (col. 2, line 65, to col. 3, line 10). Lin teaches the fiber material being suitable for cleaning (col. 3, lines 51-54). It would have been obvious to one of ordinary skill in the art to modify Hoertsch to include a suitable fiber material for cleaning, such as fiber material having the portion of micro staple fibers compared to the mass of fiber material being 3 to 50 weight %, or 5 to 30 weight %, or 5 to 20 weight %, as taught by Lin.

8. For Claims 24, 25, and 26, Hoertsch teaches the fiber material being any suitable material for cleaning (paragraphs 28 and 30). Hoertsch teaches the fiber material including cotton fibers and blends of fibers (paragraphs 28-30). The amount of cotton fiber is a result effective variable, since it affects the cost, hydrophilicity, absorption, and cleaning ability of the swab. The discovery of an optimum value of a result effective variable is ordinarily within the ordinary skill in the art. See *In re Boesch and Slaney,* 205 USPQ 215 (CCPA 1980).

9. For Claim 27, Hoertsch teaches the fiber material being any suitable material for cleaning (paragraphs 28 and 30). Hoertsch teaches the fiber material including cotton fibers (paragraphs 28-29). Hoertsch teaches the fibers having various lengths, as

suitable for cleaning (paragraphs 27, 28, 30, and 36). Note the usual definition of "cotton noil" in the art is a short cotton fiber. The length of the cotton fibers is a result effective variable, since it affects the cleaning ability and linting tendency of the swab. The discovery of an optimum value of a result effective variable is ordinarily within the ordinary skill in the art.

10. For Claims 29-30, Hoertsch teaches the fiber material being any suitable material for cleaning (paragraphs 28 and 30). Hoertsch teaches the fiber material including thermally meltable binding fibers (thermoplastics, paragraphs 28-30). The amount of thermally meltable binding fibers is a result effective variable, since it affects the binding strength of the fibers to each other. The discovery of an optimum value of a result effective variable is ordinarily within the ordinary skill in the art.

11. For Claims 32-33, Hoertsch teaches the fiber material being any suitable material for cleaning (paragraphs 28 and 30). Hoertsch teaches the fibers being multi-component fibers (paragraph 30). Hoertsch teaches that the fibers may vary widely in diameter (paragraph 36). Lin teaches the fibers being multi-component fibers (col. 2, lines 21-24). Lin teaches the fibers having a fiber thickness of 1.3 to 10 dtex or 1.3 to 3 dtex (col. 3, lines 43-45, and Claims 1 and 2). It would have been obvious to one of ordinary skill in the art to modify Hoertsch to include multi-component fibers having a suitable fiber thickness, such as 1.3 to 10 dtex or 1.3 to 3 dtex, as taught by Lin.

12. For Claim 34, Hoertsch teaches the fiber material being any suitable material for cleaning (paragraphs 28 and 30). Hoertsch teaches the fiber material including multi-component fibers (paragraph 30). Hoertsch teaches the fibers having various lengths,

as suitable for cleaning (paragraphs 27, 28, 30, and 36). The length of the fibers is a result effective variable, since it affects the cleaning ability and linting tendency of the swab. The discovery of an optimum value of a result effective variable is ordinarily within the ordinary skill in the art.

13. For Claim 35, Hoertsch teaches the fiber material being any suitable material for cleaning (paragraphs 28 and 30). Hoertsch teaches the fiber material being bicomponent fibers (paragraph 30). Hoertsch teaches the fiber material being blends of various materials, including copolyester and polyester (paragraph 30; note polyethylene terephthalate is a copolyester).

14. For Claims 37 and 38, Hoertsch teaches the removal resistance of the fiber material from the end of the stick as being secure enough to be considered a permanent bond (paragraphs 50-51). The removal resistance of the fiber material from the stick is a result effective variable, since it affects the tendency of the swab to come apart. The discovery of an optimum value of a result effective variable is ordinarily within the ordinary skill in the art.

15. For Claims 40-42, Hoertsch does not expressly teach a sinking duration of the fiber material in an aqueous solution being at least 3.4 seconds, at least 4 seconds, or at least 4.5 seconds. Applicant's specification, page 12, teaches that fiber material of 75% cotton and 25% micro fibers has a sinking time of at least 4.5 seconds. Lin teaches the portion of micro staple fibers compared to the mass of fiber material being at least 25% (col. 2, line 65, to col. 3, line 7, and Claim 1; note the microfibers are the split yarn, the mass of fiber material includes split and unsplit yarn). Lin teaches the

proportion of micro staple fibers to the mass of fiber material depending on the desired type of finished fabric (col. 2, line 65, to col. 3, line 10). Absent evidence to the contrary, the fiber material of Lin is considered by the Examiner to have a sinking duration of at least 3.4 seconds, at least 4 seconds, or at least 4.5 seconds. It would have been obvious to one of ordinary skill in the art to modify Hoertsch to include the fiber material in an aqueous solution being at least 3.4 seconds, at least 4 seconds, or at least 4.5 seconds, for the same reasons as described above for Claim 49 in paragraph 3.

16. For Claim 44, Hoertsch does not expressly teach a water retaining capacity of the fiber material being at least 23 g/g. Applicant's specification, page 12, teaches that fiber material of 75% cotton and 25% micro fibers has a water retaining capacity of at least 23 g/g. Lin teaches the portion of micro staple fibers compared to the mass of fiber material being at least 25% (col. 2, line 65, to col. 3, line 7, and Claim 1; note the microfibers are the split yarn, the mass of fiber material includes split and unsplit yarn). Lin teaches the proportion of micro staple fibers to the mass of fiber material depending on the desired type of finished fabric (col. 2, line 65, to col. 3, line 10). Absent evidence to the contrary, the fiber material of Lin is considered by the Examiner to have a water retaining capacity of at least 23 g/g. It would have been obvious to one of ordinary skill in the art to modify Hoertsch to include the fiber material having a water retaining capacity of at least 23 g/g, for the same reasons as described above for Claim 49 in paragraph 3.

17. For Claim 45, Hoertsch teaches the fiber material containing a softener (paragraph 31).

18. For Claims 46-48, Hoertsch teaches the fiber material being any suitable material for cleaning (paragraphs 28 and 30). Note that the claims do not require that the swab include any particular materials or have any particular structure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paula L. Craig whose telephone number is (571) 272-5964. The examiner can normally be reached on M-F 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Paula L Craig
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